

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF APPEALS

In re Patent Application of:

ROBERT M. HERRIN

Serial No. **10/721,962**

Filing Date: **11/25/2003**

For: **TRAY FORMING APPARATUS**

Examiner: **Christopher R. Harmon**

Art Unit: **3721**

Attorney Docket No. **7703.26**

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF
UNDER 37 CFR 41.37

MS Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Notification of Non-Compliant Appeal Brief (37 CFR 41.37) of December 31, 2008, Paper No. 20081229, an amended Appellant's Appeal Brief is herewith submitted in response to the grounds of rejection presented. It is requested that the application now be docketed as an appeal.

If any additional fee is required, authorization is given to charge Deposit Account No. **01-0484**.

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(1) Real Party in Interest

The real party in interest is Robert M. Herrin, named inventor, Applicant and Appellant for the present application for patent.

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(2) Related Appeals and Interferences

At present, there are no related appeals, interferences, or judicial proceedings.

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(3) Status of the Claims

Claims 1-19 and 48-58 stand rejected and are pending in the application. Claims 20-45 have been withdrawn. Claims 46-47 were withdrawn by the Examiner. The rejected claims that are the subject of this appeal are set out in Appendix A and include Independent Claim 1 and associated dependent claims 6, 7, 11, 14, and 57; Independent Claim 8 and associated dependent claim 9; Independent Claim 48 and associated dependent claim 49; and Independent Claim 51 and associated dependent claims 53 and 54. No Claims have been allowed. No Claims have objections nor have any Claims been cancelled.

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(4) Status of the Amendments

All amendments have been entered and there are no further pending amendments. A copy of the claims involved in this appeal is attached hereto as Appendix A.

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(5) Summary of the Claimed Subject Matter

In general and as supported by the specification (Par 28-29) with reference initially to FIGS. 1-4, embodiments of the invention are directed to an apparatus (100) for folding a paperboard blank (200) into a fully formed tray (202), and comprises a platen 102) for moving the blank (200) through a forming rail (114) for folding portions the blank (200) into a partially formed tray (206). A first folding arm (120) is positioned for biasing against an extended portion (208) of the partially formed tray (120) for a continued folding (see FIG. 4). A fixed plate (124) and a compression plate (122) are in a spaced relation (see FIG. 10) to form a passage (126) between them. A second folding arm (128) is movable through the passage (126) and positioned for biasing against an extended portion (244) of the partially formed tray (see FIG. 10) for folding the extended portion (244) through the passage (126). The fixed plate (124) guides the extended portion (244, 245) along a surface (125) of the fixed plate (124) onto a tray wall (212, 218) for providing the fully formed tray (202).

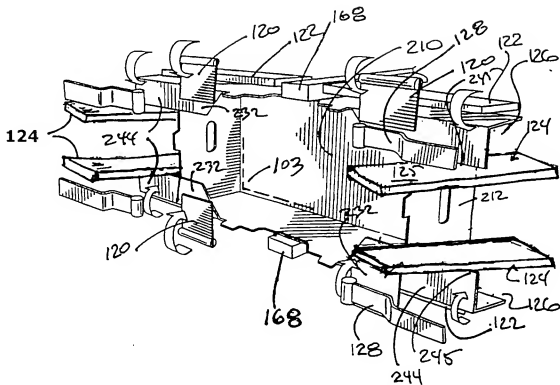


FIG. 10 of Present Application

Fig. 10 illustrates the passage (126) between fixed plate (124) and compression plate (122) at each corner of partially formed tray wherein the first folding arm (120) is illustrated folding the top wall portion (232) of the partially formed tray and is in the path of the platen (part of platen squared corner portion 103 being illustrated), the second folding arm (128) readied for movement through the passage (126).

It is to be noted that during the prosecution of the application, Paragraphs 29, 30, 38 and 40 were amended in a Response to Office Action of June 26, 2007, Paper No./Mail Date 20070615 and entered.

There are no means plus function or step plus function elements in the claims under appeal. A concise explanation of the subject matter of each independent claim in the appeal and each dependent claim are argued separately and presented as follows:

i) Independent Claims

INDEPENDENT CLAIM 1:

With reference now specifically to Independent Claim 1, while continuing to make reference to paragraphs and figures in the specification, the claimed invention is directed to an apparatus (100) for forming a paperboard blank (200), illustrated with reference to FIG. 8, into a fully formed tray (202), illustrated with reference to FIG. 2. Independent Claim 1 describes the apparatus (100) as comprising the following elements and limitations:

With reference initially to Paragraph 28 of the specification and further detailed in Paragraphs 34 and 38 with reference to FIGS. 1, 2 and 3, a platen (102) is operable for moving between a first position (106) proximate and in spaced relation to a blank (200) and a second position (108) downstream therefrom, the platen (102) being biased against the blank (200) for a driving of the blank (200) downstream to the second position (108), the platen (102) having a guide plate (158) operable at a peripheral portion (154) thereof for providing a compression surface (160);

As described in Paragraph 29 and 36 with reference to FIGS. 3 and 4, a forming rail (114) is positioned downstream the first position (106) for receiving the blank (200) moving against the forming rail (114) for folding portions the blank (200), wherein a proximal portion (116) of the forming rail (114) partially folds peripheral portions (204) of the blank (200) and a distal portion (118) of the forming rail (114) secures the blank (200) into a partially formed tray (206), wherein side walls (e.g. end panel 212 and side panel 218) of the partially formed tray (206) are fully formed, the distal portion (118) having a side folding rail portion opposing the guide plate (158) for receiving the blank peripheral portions therebetween, the guide plate being further described in Paragraph 34 with reference to FIG. 9;

With continued reference to Paragraph 29 and FIG. 4, a first folding arm (120) is movably positioned for biasing against an extended portion (208), including the top wall portion (232) and end fold portion (244) of the partially formed tray (206) as illustrated with reference to FIGS. 5 and 11 and further described in Paragraph 38, for a continued folding thereof. The first folding arm (120) is positioned proximate the distal portion (118) of the forming rail (114) and downstream the proximal portion (116) of the folding rail (120). As illustrated with reference to FIGS. 3 and 4, the first folding arm (120) is movable between a first position wherein the platen (102) can move along a path (between the first platen position (106) and second platen position (108), earlier described). The first folding arm (120) is movable to a second position, as illustrated with reference to FIG. 10, wherein the first folding arm (120) is within the path (of the platen movement) and generally perpendicular to the path;

With continued reference to Paragraph 29 and Paragraphs 38 and 40 with reference to FIG. 4, a compression plate (122) is movably carried in spaced relation to the partially formed tray (206). Further description of the compression plate (122) and its operation are described in Paragraph 40 making reference to FIGS. 16-18 ;

With continued reference to Paragraph 29 and further detailed in Paragraphs 38, 39, and 40 with reference to FIG. 4, a fixed plate (124) is carried in spaced relation to the compression plate (122), the fixed plate (124) having a surface (125), further described in Paragraph 40 with reference to FIG. 12. The surface (125) of the fixed plate (124) is generally parallel to the path of the platen (102). Yet further, the fixed plate (124) and the compression plate (122) are positioned to form a passage (126) between them; and

As also described in Paragraph 29 and further detailed in Paragraph 40 with reference to FIGS. 10 and 12, by way of example, a second folding arm (128) is movable through the passage (126) and positioned for biasing against the extended

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portion (208) of the partially formed tray (206), earlier described with reference to FIGS. 4 and 5. The second folding arm (128) is operable for folding the extended portion (208) now partially folded by the first folding arm (120) as described earlier with reference to FIG. 12, through the passage (126) formed by the fixed plate (124) and the compression plate (122). Yet further, the fixed plate (124) is positioned for guiding the extended portion (including the end fold portion 244 and side fold portion 246 illustrated with reference to FIGS. 11 and 12, by way of example, along the surface (125) of the fixed plate (124) onto a tray wall (212) for providing the fully formed tray (202), with a final compressing by the compression plate (122) as described in Paragraph (38) completing the folding and forming operations of the apparatus (100). As is clearly illustrated for the four cornered tray herein illustrated, there will be first and second folding arms and a passage formed by the opposing fixed plate and compression plate for each corner to be formed.

INDEPENDENT CLAIM 8:

With reference specifically to Independent Claim 8, the claimed invention is directed to an apparatus (100) for forming a paperboard blank (200), illustrated with reference to FIG. 8, into a fully formed tray (202), illustrated with reference to FIG. 2. Independent Claim 8 describes the apparatus (100) as comprising the following elements and limitations:

With reference initially to Paragraph 28 of the specification and further detailed in Paragraphs 34 and 38 with reference to FIGS. 1, 2, and 3, a platen (102) operable for moving between a first position (106) proximate and in spaced relation to the blank (200) and a second position (108) downstream therefrom to the second position, the platen (102) being biased against the blank (200) for a driving of the blank (200) downstream to the second position (108);

As described in Paragraph 34 and with reference to FIGS. 7 and 9 a guide plate (158) carried by the platen (102) further defining a platen periphery and for providing a compression surface (160);

As described in Paragraphs 29 and 36 with reference to FIGS. 3 and 4, a forming rail (114) positioned downstream the first position (106) for receiving the blank (200) moving against the forming rail (114) for folding portions of the blank (200), wherein a proximal portion (116) of the forming rail (114) partially folds peripheral portions (204) of the blank (200) and a distal portion (118) of the forming rail (114) secures the blank (200) into a partially formed tray (206);

With continued reference to Paragraph 29 and FIG. 4 a first folding arm (120) movably positioned for biasing against an extended portion (208) of the partially formed tray (206) for a continued folding thereof, the first folding arm (120) positioned proximate the distal portion of the forming rail (114) and downstream the proximal portion thereof;

With continued reference to Paragraph 29 and further detailed in Paragraphs 38 and 40 with reference to FIG. 4 a compression plate(122) movably carried in spaced relation to the partially formed tray (206);

With continued reference to Paragraph 29 and further detailed in Paragraphs 38, 39, and 40 with reference to FIG. 4 a fixed plate (124) carried in spaced relation to the compression plate (122) and forming a passage (126) therebetween;

As also described in Paragraph 29 and further detailed in Paragraph 40 with reference to FIGS. 10 and 12, by way of example, a second folding arm (128) movably positioned for biasing against the extended portion (208) of the partially formed tray (206) and for folding the extended portion (208) through the passage (126), wherein the fixed plate (124) is positioned for guiding the extended portion (208) onto a tray wall (212) for providing a fully formed tray (202).

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INDEPENDENT CLAIM 48:

With reference specifically to Independent Claim 48, the claimed invention is directed to an apparatus (100) for forming a paperboard blank (200), illustrated with reference to FIG. 8, into a fully formed tray (202), illustrated with reference to FIG. 2. Independent Claim 48 describes the apparatus (100) as comprising the following elements and limitations:

With reference initially to Paragraphs 28, 34, and 38 of the specification and to FIGS. 1, 2, and 3, a platen (102) operable for moving along a path between a first position (106) proximate and in spaced relation to a blank and a second position (108) downstream therefrom, the platen (102) being biased against the blank (200) for a driving of the blank (200) downstream to the second position (108), the platen (102) having a compression surface (160) thereon generally parallel to the path the platen (102);

As described in Paragraphs 29 and 36 with reference to FIGS. 3 and 4, a forming rail (114) positioned downstream the first position (106) for receiving the blank (200) moving against the forming rail (114) for folding portions of the blank (200), wherein a proximal portion of the forming rail (114) partially folds peripheral portions (204) of the blank (200) and a distal portion (118) of the forming rail (114) secures the blank (200) into a partially formed tray (206) biased against the compression surface (160);

With continued reference to Paragraph 29 and FIG. 4 a first folding arm (120) movably positioned for biasing against an extended portion (208) of the partially formed tray (206) for a continued folding thereof, the first folding arm (120) positioned proximate the distal portion of the forming rail (114) and downstream the proximal portion thereof;

With continued reference to Paragraphs 29, 38, 39, and 40 with reference to FIG. 4 a fixed plate (124) carried proximate the first folding arm (120):

With continued reference to Paragraphs 29, 38 and 40 with reference to FIG. 4, a compression plate (122) carried in spaced relation to and movable toward the fixed plate (124), wherein a passage (126) is formed therebetween; and

As also described in Paragraph 29 and further detailed in Paragraph 40 with references to FIGS. 10 and 12, a second folding arm (128) movable through the passage (126) and positioned for biasing against the extended portion (208) of the partially formed tray (206) and for folding the extended portion (208) through the passage (126), wherein the fixed plate (124) is positioned for guiding the extended portion (208) onto a tray wall (212) for providing a fully formed tray (202).

INDEPENDENT CLAIM 51:

With reference specifically to Independent Claim 51, the claimed invention is directed to an apparatus (100) for forming a paperboard blank (200), illustrated with reference to FIG. 8, into a fully formed tray (202), illustrated with reference to FIG. 2. Independent Claim 51 describes the apparatus (100) as comprising the following elements and limitations:

As described in Paragraph 30 with reference to FIG. 1, a conveyor (130) moves a blank (200) to a first position (106) as further described with reference to FIG. 3;

As described in Paragraph 31 with reference to FIGS. 1 and 6, glue applicators (136) are positioned proximate the conveyor (130) for applying an adhesive (138) to selected portions of the blank (200), as further illustrated with reference to FIGS. 7 and 9;

With reference to Paragraphs 28, 34, and 38 of the specification and to FIGS. 1, 2, and 3, a platen (102) operable downstream the applicator for moving between the first position (106) proximate and in spaced relation to the blank (200) and a second position (108) downstream therefrom, the platen (102) being biased against the blank (200) for driving the blank (200) downstream to the second position (108);

As described in Paragraphs 29 and 36 with reference to FIGS. 3 and 4, a forming rail (114) positioned downstream the first position (106) for receiving the blank (200) moving against the forming rail (114) for folding portions of the blank (200), wherein a proximal portion of the forming rail (114) partially folds peripheral portions of the blank (200) and a distal portion of the forming rail (114) secures the blank (200) into a partially formed tray (206);

With continued reference to Paragraph 29 and FIG. 4, a first folding arm (120) movably positioned for biasing against an extended portion (208) of the partially formed tray (206) for a continued folding thereof, the first folding arm (120) positioned proximate the distal portion of the forming rail (114) and downstream the proximal

portion thereof, wherein the first folding arm (120) is movable between a first position (106) wherein the platen (102) can move along a path, the first folding arm (120) movable to a second position (108) wherein the first folding arm (120) is within the path and generally perpendicular thereto;

With reference to Paragraph 29 and further detailed in Paragraphs 38 and 40 with reference to FIG. 4, a compression plate (122) movably carried in spaced relation to the partially formed tray (206);

With continued reference to Paragraph 29 and further detailed in Paragraphs 38, 39, and 40 with reference to FIG. 4, a fixed plate (124) carried in spaced relation to the compression plate (122), the fixed plate (124) having a surface (125) thereof generally parallel to the path of the platen (102), the fixed plate (124) and the compression plate (122) forming a passage therebetween; and

As also described in Paragraph 29 and further detailed in Paragraph 40 with reference to FIGS. 10 and 12, a second folding arm (128) movable through the passage and positioned for biasing against the extended portion (208) of the partially formed tray (206) and for folding the extended portion (208) through the passage, wherein the fixed plate (124) is positioned for guiding the extended portion (208) along the surface of the fixed plate (124) onto a tray wall (212) for providing a fully formed tray (202).

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ii) Dependent Claims

Claims Dependent from Independent Claim 1

Dependent Claim 6

Claim 6 depends from Claim 1 and recites that the platen (102) is further limited by having a fixed peripheral portion (102, 156, 103) (see Paragraphs 28 and 38, and FIGS. 3, 9 and 10) dimensioned for folding a bottom panel (210) of the blank (200) into a preselected fixed shape. See FIG. 9 for platen (102) having bevelled inside corners (156) and FIG. 10 for squared corners (103).

Dependent Claim 7

Dependent Claim 7 calls for a rectangular peripheral portion of the platen (102) including bevelled corners (156) cooperating with the guide plate (158) for folding an inside corner support member (224) of the formed tray (202), see FIGS. 9 and 19, by way of example. As above described. See FIG. 9 for platen (102) having bevelled inside corners (156) and FIG. 10 for squared corners (103).

Dependent Claim 11

Dependent Claim 11 depends from Claim 1 and recites a locking arm (168) operable with the forming rail (114) for securing the partially formed tray (206) in a second position (see FIGS. 4 and 10). See Paragraph 40 and FIGS. 17 and 18.

Dependent Claim 14

Dependent Claim 14, depending from independent Claim 1, calls for a magazine styled frame (172) carried downstream the second position (108) of the platen (102) and having an aperture for closely receiving a fully formed tray (202) prior to releasing the fully formed tray (202) from the apparatus (100). See Paragraph 41 and FIG. 2

Dependent Claim 57

Claim 57 depends from Claim 1 and recites the first and second folding arms (120, 128) being rotatable about first and second axes of rotation (120A, 128A), wherein the first axis (120A) is perpendicular to the second axis (128A). See Paragraph 40 and FIGS. 12-15, FIG. 12 of Replacement Sheet 7/10 herein reproduced for convenience.

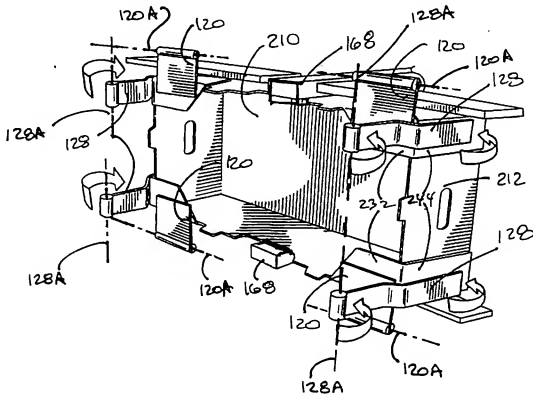


FIG. 12 of Present Application

FIG. 12 illustrates the relationship between the first folding arm (120) and the second folding arm (128) with their axes of rotation (120A, 128A) generally perpendicular to each other.

Claims Dependent from Independent Claim 8

Dependent Claim 9

Dependent Claim 9 calls for a compression surface (160) of a guide plate (158) comprising depressions for reducing a frictional contacting surface of the guide plate with the fully formed tray. See Paragraph 34 and reference to FIGS. 7 and 9.

Claims Dependent from Independent Claim 48

Dependent Claim 49

Dependent Claim 49, depending from independent Claim 48, calls for the first folding arm (120) being movable between a position allowing the platen to move past the first folding arm (120) to a position within the path and generally perpendicular to the path of the platen (102). The first position of the first folding arm (120) out of the path of the platen (102) is illustrated with reference to FIG. 4 (See Paragraph 38) and the second position of the first folding arm (120) is illustrated with reference to FIG. 10, by way of example.

Claims Dependent from Independent Claim 51

Dependent Claim 53

Dependent Claims 53 calls for a compression surface (160) of a guide plate (158) comprising depressions for reducing a frictional contacting surface of the guide plate with the fully formed tray. See Paragraph 34 and reference to FIGS. 7 and 9.

Dependent Claim 54

Dependent Claim 54 calls for a rectangular peripheral portion of the platen (102) including bevelled corners (156) cooperating with the guide plate (158) for folding an

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inside corner support member (224) of the formed tray (202), see FIGS. 9 and 19, by way of example. As above described. See FIG. 9 for platen (102) having bevelled inside corners (156) and FIG. 10 for squared corners (103).

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(6) Grounds of Rejection to be Reviewed On Appeal

A) Whether Claims 1-6, 8, 10-19, 48-52 and 55-56 are unpatentable under 35 U.S.C. §102(b) over U.S. Patent No. 3,978,774 to Royal.

B) Whether Claims 7,9, 53 and 54 are unpatentable under 35 U.S.C. §103(a) over Royal in view of Official Notice taken by Examiner for establishing AAPA.

C) Whether Claim 57 and 58 are unpatentable under 35 U.S.C. §103(a) over Royal in view of Official Notice taken by the Examiner.

D) Whether Claims 6-7 are indefinite under 35 U.S.C. §112, second paragraph.

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(7) Argument

As will be described in greater detail below, Appellant respectfully submits the Examiner's rejections over Royal are improper. Moreover, Appellant respectfully requests the Board of Patent Appeals and Interferences reverse the Examiner decision and withdraw the rejection of the claims.

The following arguments are herein presented in support of allowable claims:

A) Rejections under 35 USC §102(b) over U.S. Patent No. 3,978,774 to Royal

1. Royal does not teach claimed invention

a. Royal Disclosure Summary

The Examiner rejected independent Claims 1, 8, 48, and 51 as being anticipated by US Patent No. 3,978,774 to Royal. Royal discloses a tray forming machine having a mandrel (40) having side walls (54a) and compression plates (54) moveable with respect to a base plate (52) in order to allow the mandrel (40) to be removed from a fully formed tray as a result of portions (shoulder panel 17) of the tray extending over the mandrel (40), thus preventing it from being withdrawn from the formed tray unless the mandrel (40) is reduced in size to fit within inside dimension of the tray (see Col 4, lines 41, 50 and 57). As illustrated in FIGS. 6 and 7 of Royal, the compression plates (54) and parallel plates (74) form what the Examiner considers to be a "passage" equivalent to the passage (126) of Applicant's independent claims. Royal makes no reference to a passage.

Further, the Examiner identifies (see 11/08/2007 Office Action Page 2, Par 3) the compression arms (80), illustrated in FIG. 4 of Royal to be equivalent to the first and second folding arms (120, 128) of the claimed invention which arms (120, 128) include the limitation of being movable through the passage (126) for folding the extended portion (244) of the partially formed blank (206) into the passage (120), where as above

described has the fixed plate (124) positioned for guiding the extended portion (244, 245) along its surface (125).

Reference to portions of Royal may be helpful to the Board in better understanding the cited reference and its distinction over the claimed invention.

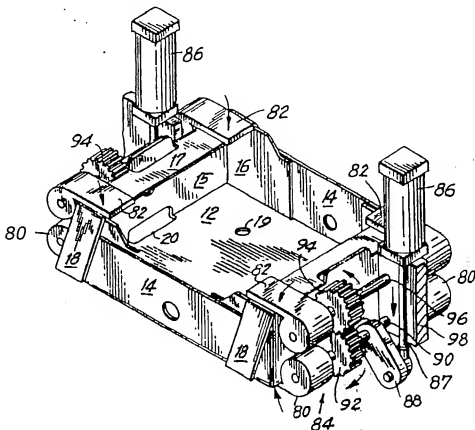


FIG. 4 of Royal

Consider (Col 4, Line 57) referring to FIG. 4. After the mandrel (40) has stopped, top-to-bottom compressor arms 80, 82 are actuated in order to fold each shoulder panel to a position which is substantially perpendicular to its associated side panel and in order to hold each shoulder panel in a substantially horizontal plane while the remainder

of the box is formed. (For clarity, the mandrel has been omitted from FIG. 4). More specifically, on each side of the machine adjacent to the bottom of the box forming station, there are provided a pair of bottom compressor arms 80 and a pair of top compressor arms 82. Each pair of compressor arms are mounted on a common shaft and the two shafts are geared together as shown at 84 in order to secure automatic, opposite rotation of the arms 80, 82. As best seen in FIGS. 4 and 7, a top-to-bottom compressor arm actuating cylinder 86 is provided and includes a downwardly extending piston 87 which is pinned to a crank arm 88. The other end of the crank arm is fixedly secured to the shaft 90. The lower compressor arms 80 and a spur gear 92 are also fixedly secured to shaft 90. The spur gear 92 engages a corresponding spur gear 94 which is fixedly secured to the shaft 96 as are the top compressor arms 82. The shafts 90, 96 are journaled in mounting blocks 98. Thus, it will be seen that when the cylinder 86 is actuated, the piston 87 will move downwardly causing a clockwise rotation of the gear 92 and the bottom folding arms 80. Additionally, a clockwise rotation of gear 92 will cause counter clockwise rotation of the gear 94 thereby causing the top compressor arms 82 to rotate downwardly. In this manner, the top compressor arms 82 perpendicularly fold the shoulder panels 17 with respect to the side panels 15 while the box is gripped along the bottom panel by the lower compressor arms 80.

As described in Col 5, Line 61 of Royal, when a sufficient period of time has elapsed to insure setting of the adhesive, the cylinders 93 are reverse actuated, the cylinders 59 attached to the mandrel base plate are reverse actuated thus contracting the mandrel to its minimum size so that it may pass between the horizontally disposed shoulder panels 17. Thereupon, the cylinder 49 is reverse actuated so as to retract the mandrel. After the mandrel has been retracted, i.e., at least after the mandrel moves upwardly out of the formed box, the cylinders 86 shown in FIG. 4 are reverse actuated thus opening the top-to-bottom compressor arms.

b. Royal deficient by not disclosing Applicant's features as claimed

Royal is presumed by the Examiner to disclose features of the claimed invention. However, it is only after the Examiner modifies Royal to support his arguments of anticipation. Clearly, it is only through the teachings of the Applicant that the Examiner has guidance for his modifications.

As held in *Paperless Accounting, Inc. v. Bay Area Rapid Transit Systems*, 804 F.2d 659, 665, 231 USPQ 649, 653 (Fed. Cir. 1986): "[A] §102(b) reference must sufficiently describe the claimed invention to have placed the public in possession of it... [E]ven if the claimed invention is disclosed in a printed publication, that disclosure will not be sufficient as prior art if it was not enabling..." See also, *Akzo N.V. v. U.S.I.T.C.*, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986) ("the prior art reference must be enabling")

Without extensive experimentation, extensive trial, and frustrating error, a person of ordinary skill in the art would not arrive at the necessary modifications needed to have elements of Royal operate together, as suggested by the Examiner to produce the claimed invention. Indeed, Royal directs his invention to requiring movable side plates to the mandrel in order to fold the tray as desired and allow the mandrel to be reduced in size in order to remove it from the formed tray. Clearly, Royal teaches away from the dimensionally fixed platen of the claimed invention.

Yet further, Royal directs its teachings to a machine that forms a tray having horizontally disposed shoulders (17). The mandrel (48) is disposed within the formed tray (see Col 5, Lines 39-41). The mandrel (48) must then be minimized in size to be retracted and pass between the shoulders (17) (see Col. 5, Lines 61-67). The claimed invention calls for a platen moving between a first position proximate the blank and a second position downstream therefrom to the second position, the platen being biased

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against the blank for a driving of the blank downstream to the second position. In addition, the claimed invention calls for a second folding arm movable through the passage and positioned for biasing against the extended portion of the partially formed tray and for folding the extended portion through the passage, wherein the fixed plate is positioned for guiding the extended portion along the surface of the fixed plate onto a tray wall for providing a fully formed tray. Royal teaches the mandrel stopped and top-to-bottom compression arms (80, 82) are actuated in order to fold each shoulder panel (17) to a position which is substantially perpendicular to its associated side panel and in order to hold each shoulder panel is a substantially horizontal plane while the remainder of the box is formed. Royal further indicates that the mandrel has been removed from FIG. 4 for clarity. Clearly, the mandrel is and must be held in place, a clear teaching away from the claimed invention. (see Col 4, Lines 57-62 and Col 5, Lines 39-41)

Reading further (see Col 5, Lines 19-23), the top compressor arms (82) perpendicularly fold the shoulder panels (17) with respect to the side panels (15) while the box is gripped along the bottom panel by the lower compression arms (80). Again, a clear teaching away from the claimed invention including a second folding arm movably positioned for folding the extended portion through the passage, wherein the fixed plate is positioned for guiding the extended portion onto a tray wall for providing a fully formed tray. Modifying Royal as suggested by the Examiner results in a malfunctioning Royal. Yet further, there is no motivation for royal to make such modifications.

2. Independent Claims Under Appeal

a. Claims 1, 8, 48 and 51 include first and second folding arms

Contrary to the Examiner's statement that Royal anticipates the claims (thus discloses all elements and limitations of the claimed invention) is incorrect. Royal is deficient in that it does not describe the interacting structure of a folding arm movable into a passage. Royal does not describe "every element as set forth in the claim" as required by 35 U.S.C. §102(b). In clear contrast to the specific language of Claim 1, the Examiner takes the position that the compression arm (82) of Royal is movable into the passage formed by the opposing compression plate (54) and parallel plate (74). One of ordinary skill in the art would clearly understand that such an interpretation is incorrect.

b. Claims 1, 8, 48 and 51 include opposing fixed plate and compression plate forming passage through which second folding arm moves

Applicant's specification clearly defines a "passage" wherein a fixed plate (124) is carried in a spaced relation to the compression plate (122) to form a passage (126), and a second folding arm (128) is carried by the frame (112) and positioned for pivoting and biasing against the extended portion (208) of the partially formed tray (206) for folding the extended portion through the passage (126). See Par 29. Those of ordinary skill in the mechanical arts appreciate that the arms (80) of Royal do not move through the passage formed by the opposing compression and parallel plates (54, 74). Further, Royal does not intend for the arms (80) to operate in such a manner for if they did, the tray would be destroyed in its making by forcing the shoulder (17) to extend further than intended.

While the Examiner gives no credit (See 11/08/2007 Office Action, Page 5, Line 8 by way of example) to the blank (workpiece 200) with regard to distinguishing the claimed invention over the prior art, the Examiner uses the workpiece (10) of Royal to

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support his view regarding the teachings of Royal. (See Continuation Sheet Advisory Action 12/05/2007 where Examiner states a passage is taught by Royal through which the product travels. Additional statements made with this Continuation Sheet lead Applicant to believe that the Examiner does not recognize the distinguishing features of the claimed invention, noting that the movement of the compression plate is not the issue.

One distinguishing feature includes the movement of the second folding arm (128) into the passage (126), not over it or along side it as taught by Royal. MPEP 2111 addresses interpretation and provides the guidance that during patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." As support above, the Examiner fails to interpret the specification and accompanying drawings support the claims.

Yet further, MPEP 2131 provides: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference." See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as contained in the ...claim." See *Richardson v. Suzuki Motor Co.* 868 F.2d 1226, 1236, 9 USPQ2d 1013, 1920 (Fed Cir. 1989). The elements must be arranged as required by the claim. The Examiner's statements oppose all of the above guidance.

Independent Claim 8 for a fixed plate carried in space relation to the compression plate and forming a passage therebetween. Likewise, Independent Claims 46 and 48 call for a fixed plate and a compression plate forming a passage therebetween.

c. Apparent Misunderstanding of Elements in Claimed Invention

The Examiner states: "In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. the specifics of the "passage") are not recited in the rejected claims." See Page 5, Lines 3-5 of 11/08/2007 Office Action, Response to Arguments Section.

Clearly, all claims call for a passage formed between a fixed plate and a compression plate. By way of example, Claim 1, Lines 21-23 call for a fixed plate carried in spaced relation to the compression plate, the fixed plate having a surface thereof generally parallel to the path of the platen, the fixed plate and the compression plate forming a passage therebetween.

The Examiner states Royal defines a passage through which the blank traverses and are folded (see page 5, lines 8-9 Office Action 11/8/2007). In contrast, the Examiner states expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim (see page 3, lines 5-7 Office Action 11/8/2007). Such apparent inconsistency causes Applicant to be concerned the Examiner does not fully understand the claimed invention. Specifically, the claimed invention calls for a second folding arm movable through the passage, while the Examiner cites Royal for teaching a workpiece in a passage.

While the Examiner interprets Royal as having a workpiece within a passage, Royal does not teach an arm (a clearly defined and claimed element of the invention) movable through a passage (a clearly defined limitation wherein the passage is formed by a fixed plate and a compression plate).

Independent Claim 8 calls for the second folding arm movably positioned for folding an extending portion of the blank (workpiece) through the passage.

Independent Claim 48 includes the limitation of the second folding arm movable through the passage.

Respectfully, the Board is reminded that the Federal Circuit has repeatedly warned against using Applicant's disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. See, e.g., *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 9076, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988). Clearly, interpreting the arm or Royal as moving through a passage, there being no "passage" disclosed in Royal, can only be appreciated when guided by the Applicant's disclosure. No known prior art reference teaches opposing plates forming a passage through which an arm moves to satisfy a need as identified by the Applicant.

3. Dependent Claims on appeal

a. Dependent Claim 2

Dependent Claim 2 depends from independent Claim 1 and calls for an in-feed conveyor for conveying the blank to the first position. While in-feed conveyors may typically be used, the in-feed conveyor herein presented adds yet another limitation to independent Claim 1 which itself distinguishes over the cited reference to Royal and therefore is itself felt to be patentable.

b. Dependent Claim 3

Dependent Claim 3 depends from dependent Claim 2 depending from independent Claim 1 and calls for the conveyor (130) to be positioned for conveying the blank in a non-vertical orientation for permitting gravity to hold a side surface of the blank against a surface of the conveyor. Royal does not disclose such a limitation nor is there any suggestion. Support for dependent Claim 3 is found in the specification as originally filed and reference to Par 30 and FIG. 1, by way of example.

c. Dependent Claim 4

Dependent Claim 4 depends from independent Claim 1 and calls for an applicator upstream the platen for applying an adhesive to a selected portion of the blank prior to the platen contacting the blank. While applicators may typically be used, the applicator herein presented adds yet another limitation to independent Claim 1 which itself distinguishes over the cited reference to Royal and therefore is itself felt to be patentable.

d. Dependent Claim 5

Dependent Claim depends from independent Claim 1 and calls for a drive mechanism operable with the platen for moving the platen between the first and second positions. While drive mechanisms may typically be used, the drive mechanism herein presented adds yet another limitation to independent Claim 1 which itself distinguishes over the cited reference to Royal and therefore is itself felt to be patentable.

e. Dependent Claim 6

Dependent Claim 6, depending from independent Claim 1, calls for the platen (102) comprising a fixed peripheral portion (103) dimensioned for folding a bottom panel of the blank (200) into a preselected fixed shape. The Examiner cites Royal for having a platen (48) which is clearly described by Royal (see Col 3, Line 31) as being an expandable and contractable mandrel (48). Without explanation, one might presume the Examiner takes the position that at one instant in time the mandrel does have a fixed periphery. If such is the case, the Examiner's interpretation of the mandrel (48) fails to meet the limitations of Royal and is such an interpretation is a clear teaching away from Royal.

f. Dependent Claim 10

Dependent Claim 10 depends from independent Claim 1 and calls for the forming rail to comprise: opposing end folding rails positioned for receiving end portions of the

blank and dimensioned for folding the end portions upwardly from a bottom portion thereof; opposing edge rails operable with each of the opposing end folding rails for inwardly folding outside edge portions of the end portions of the blank; and opposing side folding rails positioned for receiving side portions of the blank and for folding the side portions upwardly from the bottom portion thereof while capturing the outside edge portions of the end portions therebetween, wherein the blank is received at proximal ends of the forming rail, and wherein a distal end thereof secures therein a partially formed tray formed from the blank. While forming rails may be typically used in the art, the specific features of the forming rails as claimed add yet additional limitation to independent Claim 1 which itself distinguishes over the cited reference to Royal and therefore is itself felt to be patentable.

g. Dependent Claim 11

Dependent Claim 11 depending from independent Claim 1, calls for a locking arm (168) operable with the folding rail (114) for securing the partially formed tray in a second position. See FIGS. 3 and 4, by way of example. The Examiner cites crank arm (88) of Royal (see FIG. 4) as being equivalent to the Applicant's locking arm (167). However, the crank arm (88) acts to operate the compressor arms (80, 82) to hold the tray in place. The locking arm (168) of the claimed invention is a distinct and is an additional element to the folding arms (120, 128). It appears the Examiner is impermissibly using the Royal element (80) to argue that Royal anticipates the claimed invention calling for folding arms (120, 124) and a locking arm (168). Royal is deficient in that it does not describe first and second folding arms interacting with a locking arm as called for in Claim 11.

h. Dependent Claim 12

Dependent Claim 12 depends from dependent Claim 11, which itself depends from independent Claim 1 and calls for a drive device operable with each of the platen,

the compression plate, the first folding arm, the second folding arm, and the locking arm for movement of each in folding of the blank into the partially formed tray and then into the fully formed tray. While drive devices may typically be used in such a manner as claimed, the drive device herein presented adds yet another limitation to dependent Claims 11 which itself is felt to distinguish over the cited reference to Royal as above presented, and therefore felt to be patentable.

i. Dependent Claim 13

Dependent Claim 13 depends from dependent Claim 12, which itself depends from dependent Claim 11, which depends from independent Claim 1 and calls for a controller operable with the each of the drive devices for the timely movement of each of the platen, the compression plate, the first folding arm, the second folding arm, and the locking arm in folding of the blank into the partially formed tray and after removal of the platen into the fully formed tray. While controllers may typically be used in such a manner as claimed, the controller herein presented adds yet another limitation to dependent Claims 11 and 12, which are felt to distinguish over the cited reference to Royal as above presented. Therefore, dependent Claim 13 is felt to be patentable.

j. Dependent Claim 14

Dependent Claim 14, depending from independent Claim 1, calls for a magazine styled frame (172) carried downstream the second position (108) of the platen (102) and having an aperture for closely receiving a fully formed tray (202) prior to releasing the fully formed tray (202) from the apparatus (100). The Examiner relies on Royal (FIG. 9) for such a teaching. However, Royal clearly discloses a series of rollers disposed such that a formed box falling out of the box forming station will fall upon the rollers to be discharged from the machine (see Col 6, Lines 27-32).

k. Dependent Claims 15-19

Dependent Claims 15-19 depend from independent Claim 1. The Examiner argues that expressions relating the apparatus to contents during an intended operation are of no significance in determining patentability of the apparatus claim. Appellant respectfully traverses such an argument in that the introduction of a work piece (the blank) and its features provide an understanding and support for the structure and limitations of the structure being claimed.

Dependent Claim 15 further defines the blank (see specification Paragraph 32 as filed with reference to FIG. 8 describing one blank (200) by way of example).

Dependent Claim 16 calls for the inside corner support member to include a fourth fold line for forming a bevel within the inside corner support member through a folding thereof, wherein the bevel results from a rectangular peripheral portion of the platen including bevelled corners cooperating with the guide plate proximate thereto for folding the inside corner support member of the formed tray, thus providing support for the significance of the bevelled edge of the platen and guide plate also addressed in this brief.

Dependent Claim 17 calls for the platen to be dimensioned and aligned to fit proximate the first and second fold lines when contacting the bottom panel. Royal makes no such disclosure nor suggestion, but teaches an adjustable mandrel, as above described.

Dependent Claim 18 adds functionality to the forming rails for further emphasizing their features and adding an understanding to the apparatus being claimed.

Yet further, dependent Claim 19 calls for the first folding arm to be operable for folding the top wall portion about the fifth fold line to a position generally parallel to the bottom panel, and wherein the side fold portion is partially folded about the sixth line by passing through the passage, and wherein the compression plate is moveable for

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biasing against each of the side fold, thus adding functionality to the claimed structure fro a better understanding and distinction over known and cited references such as Royal.

I. Dependent Claim 49

Dependent Claim 49, depending from independent Claim 48, calls for the first folding arm (120) being movable between a position allowing the platen to move past the first folding arm (120) to a position within the path and generally perpendicular to the path of the platen (102). The Examiner states Royal fails to disclose folding arms (120, 128) capable of rotation about first and second axes (120A, 128A) of rotation (perpendicularly arranged as illustrated in FIG. 12 above), however the Examiner takes OFFICIAL NOTICE that there are well known mechanical joints (i.e. universal joint) for enabling rotational movement of elements along at least two axes. See Office Action 11/8/2007 Page 4, Par 6. The Examiner goes on to state it would be obvious to provide such a mechanical connection to Royal for rotating the folding arms out of the folding passage along a second axis (perpendicular to the first) in order to prevent interference with the advancement of the next product.

Royal teaches arms (80, 82) already out of the "folding passage" and teaches the mandrel (48) to be expandable. The structure of the claims invention is clearly not disclosed by Royal and certainly not suggested. There is no motivation for Royal to rotate the arms (80, 82) as suggested by the Examiner.

m. Dependent Claim 50

Dependent Claim 50 depends from independent Claim 48 and expands upon the features and limitations of the fixed plate to be defined as having a surface thereon generally parallel to the path of the platen. The fixed plate and the compression plate form a passage therebetween, and the fixed plate is positioned for guiding the extended portion of the partially formed tray along the surface of the fixed plate. Such a feature is

neither disclosed nor suggested by Royal. Yet further, such a feature further supports the failure of Royal to provide a "passage" and above presented when arguing the patentability of independent Claims 1, 8, 48 and 51.

n. Dependent Claim 52

Dependent Claim 52 depends from independent Claim 51 and calls for a guide plate as an additional element operable at a peripheral portion of the platen, the guide plate having a compression surface thereon, wherein the distal portion includes a side folding rail portion opposing the guide plate for receiving the blank peripheral portions therebetween. Respectfully, Royal makes no such disclosure nor suggestion as would appear to be seen by the Examiner while not specifically identifying the guide plate.

o. Dependent Claim 55

Dependent Claim 55 depends from independent Claim 51 and calls for the conveyor (130) to be positioned for conveying the blank in a non-vertical orientation for permitting gravity to hold a side surface of the blank against a surface of the conveyor. As presented above for dependent Claim 3, Royal does not disclose such a limitation nor is there any suggestion. Support for dependent Claim 55 is found in the specification as originally filed and reference to Par 30 and FIG. 1, by way of example.

p. Dependent Claim 56

Dependent Claim 56 depends from independent Claim 51 and calls for the platen to comprise a rectangular shape dimensioned for folding a bottom panel of the blank into a rectangular shape. While rectangular shaped platens may be typically used, they are not used with the features and limitations called for in independent Claim 51 which distinguishes over the cited reference to Royal. Dependent Claim 56 is therefore felt to be patentable over Royal.

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B) Rejections under 35 U.S.C. §103(a) over Royal in view of Official Notice

1) Dependent Claims 7 and 54 over Royal in view of Official Notice by Examiner for establishing AAPA

Dependent Claims 7 and 54 call for a rectangular peripheral portion of the platen (102) including bevelled corners (156) cooperating with the guide plate (158) for folding an inside corner support member (224) of the formed tray (202), see FIGS. 9 and 19, by way of example. As indicated in the 02/02/2005 Office Action, Page 3, Par. 3, the Examiner (different from current) rejects Claim 7 as being unpatentable over US Patent No. 5,9712,906 to Tharpe Jr. et al. in view of Official Notice. The Response to the 02/02/2005 Office Action traversed the rejections over Tharpe, which rejections were withdrawn. The current Examiner now rejects Claims 7 and 54 over Royal in view of AAPA (established by the previous Examiner), arguing that Applicant was untimely in traversing the rejection. The Board is now asked to retract the rejections based on the impermissible Office Action and Examiner established AAPA.

2) Dependent Claims 9 and 53 over Royal in view of Official Notice by Examiner for establishing AAPA

Dependent Claims 9 and 53 call for a compression surface (160) of a guide plate (158) comprising depressions for reducing a frictional contacting surface of the guide plate with the fully formed tray. As presented above, the 02/02/2005 Office Action, Page 3, Par. 3, the Examiner (different from current) rejects Claim 9 as being unpatentable over US Patent No. 5,9712,906 to Tharpe Jr. et al. in view of Official Notice. The Response to the 02/02/2005 Office Action traversed the rejections over Tharpe, which rejections were withdrawn. The current Examiner now rejects Claims 9 and 53 over Royal in view of AAPA (established by the previous Examiner), arguing that Applicant was untimely in

traversing the rejection. The Board is now asked to retract the rejections based on the impermissible Office Action and Examiner established AAPA.

3) Dependent Claim 57 over Royal in view of Official Notice by the Examiner

Claim 57, depending from Claim 1, calls for each of the first and second folding arms rotatable about first and second axes of rotation, respectively, have the first axis of rotation generally perpendicular to the second axis of rotation. See Appellant's FIG. 12, by way of example.

The Examiner rejected Claim 57 depending from Claim 1 under 35 USC 103(a) based on the teachings of Royal and Official Notice regarding the arrangement of the first and second folding arms and their axes of rotation being perpendicular to each other arguing that it would have been obvious to one of ordinary skill in the art to provide such a mechanical connection in the invention of Royal in order to prevent interference with the advancement of the next product (See 11/08/2007 Office Action Page 4, Par 6). The Examiner has not only modified the apparatus of Royal such that it would not operate but has added reasons for making the modification that are not consistent with the teachings of the claimed invention and are inconsistent with the teachings of Royal. It would therefore appear that the claimed invention is not clear to the Examiner, nor has the problems addressed by the Appellant appear to be understood.

By way of example, "The advancement of the next product" is not the issue, nor does it provide the motivation for the arrangement of the axes of rotation of the first and second folding arms. In addition, by modifying Royal as suggested, Royal would not be able to operate as disclosed and would fail to meet the needs identified by Royal. Further, the issue is not a universal joint, but the relationship between the first folding arm and the second folding arm as presented in the claimed invention.

4.) Dependent Claim 58 over Royal in view of Official Notice by the Examiner

Dependent Claim 58 depends for dependent Claim 57, which itself depends from independent Claim 1. Dependent Claim 58 adds the additional feature of drive means operable with each of the first and second folding arms for rotating the first and second folding arms about the first and second axes of rotation. While drive means may typically be used, the drive means herein presented adds yet another limitation to independent Claim 1 which itself distinguishes over the cited reference to Royal and therefore is itself felt to be patentable, as above discussed with regard to Claim 57.

C) Rejection of Claims 6-7 under 35 U.S.C. §112, second paragraph

Dependent Claim 6, depending from independent Claim 1, calls for the platen (102) comprising a fixed peripheral portion (103) dimensioned for folding a bottom panel (210) of the blank (200) into a preselected fixed shape. With reference to FIG. 10, by way of example, the fixed peripheral portion (103) of the platen (102) causes the folding of the blank (200) along fold lines (216 and 220 identified in FIG. 8) as the platen moves from the first position (106) to the second position (108) as illustrated in FIGS. 3 and 4.

D) Conclusion

As is well known by the Board, modern decisions regarding "anticipation" require that each and every element and limitation of the claimed invention be disclosed in the single prior art reference. For anticipation, there must be no difference between the claimed invention and the reference disclosure. Royal does not disclose nor suggest the same combination of elements and limitations as claimed by Appellant. Royal is motivated to perform a different function and as such is not motivated to modify its teachings to solve the problem being addressed by the claimed invention. Royal does not suggest its structural elements be interpreted or modified as proposed by the

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Examiner. Further, the combinations presented by the Examiner would not work and work to make Royal inoperable.

As discussed above, MPEP 2111 provides the guidance that during patent examination, the pending claims must be "given their broadest reasonable interpretation consistent with the specification." As supported above, the Examiner fails to interpret the specification and accompanying drawings provided in support of the claims.

Further, MPEP 2131 provides that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. Yet further, the identical invention must be shown in as complete detail as contained in the claim. The elements must be arranged as required by the claim. Such is not the case and such is clearly being misunderstood by the Examiner based on his statements.

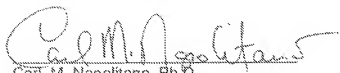
With regard to the rejections made based on obviousness, consider *KSR International Co. v. Teleflex, Inc.* (KSR). Modification of Royal makes Royal unsatisfactory for its intended use. Royal solved a problem of removing a mandrel or platen by having the mandrel resizable in order to be removed without being snagged by the top shoulder of the tray. The claimed invention has the platen removed before the top shoulder of the tray is formed. To do so required a distinctive arrangement of folding arms not suggested by Royal. Further, the claimed invention is not simply a combination claim to known elements that simply perform the same functions as in the prior art as case law would guide us to consider. In fact, the claimed invention provides distinct elements and limitations, as above described. The Federal Circuit's standard holds that a combination of prior art can be obvious only if there is some motivation, suggestion, or teaching to combine the prior art. There is no motivation, suggestion or teaching by Royal.

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Further, there is no intrinsic or extrinsic justification for the modifications being made by the Examiner in either his rejections under § 102 or under § 103. As such, there is no *prima facie* case made for obviousness as assumed by the Examiner. It is clear that Royal does not suggest or anticipate the benefits of the modifications being suggested by the Examiner. It should be appreciated that the mere fact a reference can be modified does not make the resultant obvious unless the prior art suggests the modification. See *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Regardless of the view of the Board, every reasonable interpretation supports patentability of the claims pending the in Appellant's application.

It is therefore submitted that all of the claims are patentable over the prior art. Applicant respectfully requests allowance of Claims 1-6, 8, 10-19, 43-52 and 55-56 rejected under 35 USC § 102(b), and 7, 9, 53, 54, 57 and 58 rejected under 35 USC § 103(a). Accordingly, the Board of Patent Appeals and Interferences is respectfully requested to reverse the earlier unfavorable decision made by the Examiner.

Respectfully submitted,


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APPENDIX A - CLAIMS ON APPEAL
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1. An apparatus comprising:

a platen operable for moving between a first position proximate and in spaced relation to a blank and a second position downstream therefrom, the platen being biased against the blank for a driving of the blank downstream to the second position, the platen having a guide plate operable at a peripheral portion thereof for providing a compression surface;

a forming rail positioned downstream the first position for receiving the blank moving against the forming rail for folding portions the blank, wherein a proximal portion of the forming rail partially folds peripheral portions of the blank and a distal portion of the forming rail secures the blank into a partially formed tray, wherein side walls of the partially formed tray are fully formed, the distal portion having a side folding rail portion opposing the guide plate for receiving the blank peripheral portions therebetween;

a first folding arm movably positioned for biasing against an extended portion of the partially formed tray for a continued folding thereof, the first folding arm positioned proximate the distal portion of the forming rail and downstream the proximal portion thereof, wherein the first folding arm is movable between a first position wherein the

platen can move along a path, the first folding arm movable to a second position wherein the first folding arm is within the path and generally perpendicular thereto;

a compression plate movably carried in spaced relation to the partially formed tray;

a fixed plate carried in spaced relation to the compression plate, the fixed plate having a surface thereof generally parallel to the path of the platen, the fixed plate and the compression plate forming a passage therebetween; and

a second folding arm movable through the passage and positioned for biasing against the extended portion of the partially formed tray and for folding the extended portion through the passage, wherein the fixed plate is positioned for guiding the extended portion along the surface of the fixed plate onto a tray wall for providing a fully formed tray.

2. An apparatus according to claim 1, further comprising an in-feed conveyor for conveying the blank to the first position.

3. An apparatus according to claim 2, wherein the conveyor is positioned for conveying the blank in a non-vertical orientation for permitting gravity to hold a side surface of the blank against a surface of the conveyor.

4. An apparatus according to claim 1, further comprising an applicator upstream the platen for applying an adhesive to a selected portion of the blank prior to the platen contacting the blank.

5. An apparatus according to claim 1, further comprising a drive mechanism operable with the platen for moving the platen between the first and second positions.

6. An apparatus according to claim 1, wherein the platen comprises a fixed peripheral portion dimensioned for folding a bottom panel of the blank into a preselected fixed shape.

7. An apparatus according to claim 6, wherein the rectangular peripheral portion of the platen includes bevelled corners cooperating with the guide plate proximate thereto for folding an inside corner support member of the formed tray.

8. An apparatus comprising:
a platen operable for moving between a first position proximate and in spaced relation to the blank and a second position downstream therefrom to the second position, the platen being biased against the blank for a driving of the blank downstream to the second position;

a guide plate carried by the platen further defining a platen periphery and for providing a compression surface;

a forming rail positioned downstream the first position for receiving the blank moving against the forming rail for folding portions of the blank, wherein a proximal portion of the forming rail partially folds peripheral portions of the blank and a distal portion of the forming rail secures the blank into a partially formed tray;

a first folding arm movably positioned for biasing against an extended portion of the partially formed tray for a continued folding thereof, the first folding arm positioned proximate the distal portion of the forming rail and downstream the proximal portion thereof;

a compression plate movably carried in spaced relation to the partially formed tray;

a fixed plate carried in spaced relation to the compression plate and forming a passage therebetween;

a second folding arm movably positioned for biasing against the extended portion of the partially formed tray and for folding the extended portion through the passage, wherein the fixed plate is positioned for guiding the extended portion onto a tray wall for providing a fully formed tray.

9. An apparatus according to claim 8, wherein the compression surface comprises depressions for reducing a frictional contacting surface thereof.

10. An apparatus according to claim 1, wherein the forming rail comprises:
opposing end folding rails positioned for receiving end portions of the blank and dimensioned for folding the end portions upwardly from a bottom portion thereof;
opposing edge rails operable with each of the opposing end folding rails for inwardly folding outside edge portions of the end portions of the blank; and
opposing side folding rails positioned for receiving side portions of the blank and for folding the side portions upwardly from the bottom portion thereof while capturing the outside edge portions of the end portions therebetween, wherein the blank is received at proximal ends of the forming rail, and wherein a distal end thereof secures therein a partially formed tray formed from the blank.

11. An apparatus according to claim 1, further comprising a locking arm operable with the folding rail for securing the partially formed tray in the second position.

12. An apparatus according to claim 11, further comprising a drive device operable with each of the platen, the compression plate, the first folding arm, the

second folding arm, and the locking arm for movement of each in folding of the blank into the partially formed tray and then into the fully formed tray.

13. An apparatus according to claim 12, further comprising a controller operable with the each of the drive devices for the timely movement of each of the platen, the compression plate, the first folding arm, the second folding arm, and the locking arm in folding of the blank into the partially formed tray and after removal of the platen into the fully formed tray.

14. An apparatus according to claim 1, further comprising a magazine styled frame carried downstream the second position, the magazine styled frame having an aperture for closely receiving a fully formed tray prior to releasing the fully formed tray from the apparatus.

15. An apparatus according to claim 1, wherein the blank includes a paperboard construction defined by:

a bottom panel;

first and second opposing end panels attached to opposing peripheral end portions of the bottom panel via first fold lines;

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first and second opposing side panels attached to opposing peripheral side portions of the bottom panel via second fold lines;

an inside corner support member attached to opposing edges of each of the opposing end panels via a third fold line;

a top wall portion attached to opposing edges of each opposing side panel via a fifth fold line;

an outside corner support member attached to each of the top wall portions via a sixth fold line, wherein the outside corner support member includes a seventh fold line therein for forming an outside corner support via an end fold portion and a side fold portion thereof.

16. An apparatus according to claim 15, wherein the inside corner support member includes a fourth fold line therein for forming a bevel within the inside corner support member through a folding thereof, wherein the bevel results from a rectangular peripheral portion of the platen including bevelled corners cooperating with the guide plate proximate thereto for folding the inside corner support member of the formed tray.

17. An apparatus according to claim 16, wherein the platen is dimensioned and aligned to fit proximate the first and second fold lines when contacting the bottom panel.

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18. An apparatus according to claim 15, wherein the forming rail folds the end panels about the first fold lines and the side panels about the second fold lines, with each inside corner support member folded about the third fold line inwardly of the opposing side panels, and wherein the partially formed tray is configured with the end and side panels positioned generally orthogonal to the bottom panel and each of the inside corner support members folded about the third fold line and in juxtaposition with the side panel portions, and wherein each of the top wall portions and outside corner support members are generally parallel to respective side panels thereof.

19. An apparatus according to claim 15, wherein the first folding arm is operable for folding the top wall portion about the fifth fold line to a position generally parallel to the bottom panel, and wherein the side fold portion is partially folded about the sixth line by passing through the passage, and wherein the compression plate is moveable for biasing against each of the side fold.

48. An apparatus comprising:

a platen operable for moving along a path between a first position proximate and in spaced relation to a blank and a second position downstream therefrom, the platen being biased against the blank for a driving of the blank downstream to the second

position, the platen having a compression surface thereon generally parallel to the path of the platen;

a forming rail positioned downstream the first position for receiving the blank moving against the forming rail for folding portions of the blank, wherein a proximal portion of the forming rail partially folds peripheral portions of the blank and a distal portion of the forming rail secures the blank into a partially formed tray biased against the compression surface;

a first folding arm movably positioned for biasing against an extended portion of the partially formed tray for a continued folding thereof, the first folding arm positioned proximate the distal portion of the forming rail and downstream the proximal portion thereof;

a fixed plate carried proximate the first folding arm;

a compression plate carried in spaced relation to and movable toward the fixed plate, wherein a passage is formed therebetween; and

a second folding arm movable through the passage and positioned for biasing against the extended portion of the partially formed tray and for folding the extended portion through the passage, wherein the fixed plate is positioned for guiding the extended portion onto a tray wall for providing a fully formed tray.

49. An apparatus according to claim 48, wherein the first folding arm is movable between a position allowing the platen to move thereby along a path of the platen to a position within the path and generally perpendicular thereto.

50. An apparatus according to claim 48, wherein the fixed plate includes a surface thereon generally parallel to the path of the platen, the fixed plate and the compression plate forming a passage therebetween, and wherein the fixed plate is positioned for guiding the extended portion of the partially formed tray along the surface of the fixed plate.

51. An apparatus comprising:

- a conveyor dimension for conveying a blank to a first position;
- applicator positioned proximate the conveyor for applying an adhesive to a selected portion of the blank;
- a platen operable downstream the applicator for moving between the first position proximate and in spaced relation to the blank and a second position downstream therefrom, the platen being biased against the blank for driving the blank downstream to the second position;
- a forming rail positioned downstream the first position for receiving the blank moving against the forming rail for folding portions of the blank, wherein a proximal

portion of the forming rail partially folds peripheral portions of the blank and a distal portion of the forming rail secures the blank into a partially formed tray;

a first folding arm movably positioned for biasing against an extended portion of the partially formed tray for a continued folding thereof, the first folding arm positioned proximate the distal portion of the forming rail and downstream the proximal portion thereof, wherein the first folding arm is movable between a first position wherein the platen can move along a path, the first folding arm movable to a second position wherein the first folding arm is within the path and generally perpendicular thereto;

a compression plate movably carried in spaced relation to the partially formed tray;

a fixed plate carried in spaced relation to the compression plate, the fixed plate having a surface thereof generally parallel to the path of the platen, the fixed plate and the compression plate forming a passage therebetween; and

a second folding arm movable through the passage and positioned for biasing against the extended portion of the partially formed tray and for folding the extended portion through the passage, wherein the fixed plate is positioned for guiding the extended portion along the surface of the fixed plate onto a tray wall for providing a fully formed tray.

52. An apparatus according to Claim 51, further comprising a guide plate operable at a peripheral portion of the platen, the guide plate having a compression surface thereon, wherein the distal portion includes a side folding rail portion opposing the guide plate for receiving the blank peripheral portions therebetween.

53. An apparatus according to claim 52, wherein the compression surface comprises depressions for reducing a frictional contacting surface thereof.

54. An apparatus according to claim 52, wherein the rectangular shape includes bevelled corners thus providing an eight sided platen, wherein the bevelled corners cooperate with the guide plate proximate thereto for folding an inside corner support member of the formed tray.

55. An apparatus according to claim 51, wherein the conveyor is positioned for conveying the blank in a non-vertical orientation for permitting gravity to hold a side surface of the blank against a surface of the conveyor.

56. An apparatus according to claim 51, wherein the platen comprises a rectangular shape dimensioned for folding a bottom panel of the blank into a rectangular shape.

57. An apparatus according to claim 1, wherein each of the first and second folding arms is rotatable about first and second axes of rotation, respectively, and wherein the first axis of rotation is generally perpendicular to the second axis of rotation.

58. An apparatus according to claim 57, further comprising drive means operable with each of the first and second folding arms for rotating the first and second folding arms about the first and second axes of rotation.

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APPENDIX B – EVIDENCE APPENDIX
PURSUANT TO 37 C.F.R. § 41.37(c)(1)(ix)

None.

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APPENDIX C – RELATED PROCEEDINGS APPENDIX
PURSUANT TO 37 C.F.R. § 41.37(c)(1)(x)

None.